

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Our Ref.: 1038-422 MIS:ep

In re patent application

No.: 08/433,646

Applicant: Raafat E.F. Fahim

Title: CELLULAR PERTUSSIS VACCINES AND METHODS OF PREPARATION THEREOF

Filed: May 4, 1995

Group No.: 1802

Examiner: R. Freed

September 30, 1997

AMENDMENT AFTER FINAL ACTION

The Commissioner of Patents and Trademarks
Washington, D.C.
20231, U.S.A.

Dear Sir:

In response to the Office Action of April 1, 1997, please amend this application in the following manner:

IN THE CLAIMS:

Amend claims 1, 10 and 13 as follows:

1. (Twice Amended) A process for preparing an agglutinin preparation comprising fimbrial agglutinogens 2 (Agg 2) and fimbrial agglutinin 3 (Agg 3) [substantially] free from agglutinin 1 from a *Bordetella* strain, comprising the steps of:

- (a) providing a cell paste of the *Bordetella* strain;
- (b) selectively extracting fimbrial agglutinogens 2 and 3 from the cell paste by dispersing the cell paste in a buffer comprising about 1M to about 6M urea to produce a first supernatant containing said agglutinogens 2 and 3 and a first residual precipitate;
- (c) separating the first supernatant from the first residual precipitate;